CURRENT TRENDS IN CURRICULUM AND INSTRUCTION

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There was a time—hard to remember now—when education was *not* a steady front-page subject in the news, nor were the foreign and domestic events reported so quickly reflected in educational concerns. Fortunately, we as a people have moved beyond a concern for survival which focused on education in science and technology. Now, there is welcome news of a growing solicitude about "survival for what?" This can be found in the many announcements about new activities in the humanities and arts.

One of the most recent of these is the President's message to Congress requesting Federal aid to stimulate and encourage drama, dance, painting, music, literature, history, and other cultural activities in the United States—to establish a National Foundation for the Arts and Humanities. Senator Claiborne Pell, who introduced the President's bill, said at the time that it was "the first time in our history" that "a President of the United States has given his administrative support to such a comprehensive measure which combines the two areas most significant to our nation's cultural advancement . . ."[1]

Just before that event, the Rockefeller Brothers Fund published a report, *The Performing Arts—Problems and Prospects*,[2] to assess the place of these arts in our national life and to identify the impediments to their greater welfare and to their wider enjoyment.

There also are some other indications that a reversal of the emphasis on the sciences has begun. Early

in 1963, the Ford Foundation announced the grant of nearly 1.4 million dollars to the Music Educators National Conference, a department of the NEA, for a six-year contemporary music project focused on creativity in the elementary and secondary schools. Ford has also recently created a stir by its seven-million-dollar grant to George Balanchine for the ballet. (The modern dancers feel an imbalance has been created within that art form!) Also, in June 1963, a national Commission on the Humanities was established by the American Council of Learned Societies, the Council of Graduate Schools in the United States, and the United Chapters of Phi Beta Kappa to review the state of the humanities and to recommend means of improving their teaching, scholarship and creativity.

All of these activities will, inevitably, have an impact on programs in both schools and colleges. It is generally agreed that support for the humanities and arts is long overdue and that it redresses existing imbalances in our general curricula. The next question is, however: are we, as educators generally or as specialists in the affected fields, really adequately prepared to respond to these events?

The proposition on which these remarks are based is that new trends in the total school program must be understood by college professors of music if teachers are to be prepared to function in such programs —if they are to be innovators and agents of educational change. This is one of the ends toward which the National Education Association sponsored the Project on Instruction—one of several major efforts in this century to upgrade the quality of American education and give it direction. These efforts included the 1918 statement of "The Seven Cardinal Principles of Education" and the various pronouncements of the Educational Policies Commission.

Because leaders in higher education, including leaders in music and music education, must understand current trends in curriculum and instruction in the schools, this paper will address itself to seven sets of problems:

1. A theoretical background for examining current trends in curriculum and instruction
2. Asking the right questions about curriculum and instruction
3. Trends in deciding what to teach
4. Trends in planning and organizing for teaching
5. Trends in teaching
6. Trends in evaluation
7. Trends in teacher education.

A THEORETICAL BACKGROUND FOR EXAMINING CURRENT TRENDS IN CURRICULUM AND INSTRUCTION Curriculum and teaching may be examined from two major points of view—strategies for curriculum change and substantive necessities in change. While recognizing the importance of the former, this paper will confine itself to the latter. The substantive necessities in change which we have found useful in examining current trends are based on the Tyler rationale which can be summarized briefly as follows: the curriculum maker has four basic tasks, regardless of the level at which he works or the content field in which he is interested.

The first of these tasks is the building of objectives for the curriculum. These objectives or statements of ends should be constructed in a systematic manner that consciously uses appropriate data sources and screening devices. In order that objectives can be useful in the remaining three tasks, it is also important that they be stated in terms of the behavior which is expected of the learner, and that they indicate the content or area of life in which the behavior is to operate. In addition to preciseness in statement, educational objectives should meet the criteria of significance and attainability. That is, the ends selected for learners should be the most important ones out of all that could be chosen, and learners should be able to acquire the behavior implicit in the objective.

The other three tasks flow from, and are closely related to, the statement of objectives. These tasks have to do with selecting learning opportunities and appropriate materials for learners, the organization of these opportunities, and the selection of means of evaluation in terms of the objectives. All curricular products can be placed in one or more of the broad categories of objectives, selection of learning opportunities, organization, and evaluation.

Of these four tasks the most important is the act of determining educational objectives, of making choices from a wide range of skills, understandings, and attitudes. The purpose of making choices, of establishing priorities, is to provide a foundation for the school's program, to provide direction and shape for the education of students. Wise choices will, therefore, provide a stronger foundation for the school's program.

The nature of the choices made by those developing objectives is determined by many factors. Curriculum makers in the 1930's, for example, were greatly influenced by the new studies of learners. Schools of the thirties developed programs that attempted to meet the so-called fundamental needs of children. In the 1940's, the advent of a large scale war caused objectives to be more nearly centered around the needs of a society in crisis. A different kind of crisis, the competition of a hostile and powerful country, caused curriculum makers in the decade of the fifties to educate for survival and national eminence. The first half of the sixties has seen the reappearance of the academic scholar in the lower schools and a heavier emphasis on organized knowledge as a basis for decision-making in developing objectives. In retrospect, the curriculum of United States schools has changed emphasis as pressures to consider new data sources have increased.

In order that objectives shape a balanced program, one that will enable learners to live personally satisfying and socially significant lives, curriculum makers need to make selections from a broad range of curricular choices. The rationale for developing educational objectives that is described here provides for a thorough review of the pertinent data sources and indicates procedures for making valid decisions from the data.[4]

Three sources of data are essential in validating educational objectives—the learner, society, and the disciplines. A word about each seems appropriate.

The Learner as a Base Every child has an inner drive to become a more complete person and to learn what can become meaningful to him. The art of teaching lies in stimulating this force and in keeping it alive, free, and developing. To do so, it is essential to understand the learner, to know what he is working on, what he is up against, what his basic assets include.

Investigations by psychologists during the last fifteen years have provided much significant information about thinking, learning, and personality. Their findings are helping to lay a better foundation for changes in curriculum and methods of teaching. It seems clear now that development is achieved through learning, probably constrained by biochemical processes that may be genetically regulated. The idea of development as emergence according to a precise timetable is withering on the vine. No one child develops or learns at the exact rate of another, nor is a child's own learning all of a piece; differences exist within individuals as well as among them.

Some of the concerns that seem most significant in educational planning and practice, in terms of the learner, are: acknowledging inter-individual differences; acknowledging intra-individual differences; acknowledging social group differences; recognizing and nurturing creativity; promoting the development of responsibility; promoting the development of positive self-attitudes; relating learning to development in children; and evaluating the learner's motivations.

Society as a Base Social forces such as science and technology, economic growth, large bureaucratic organizations, the growth of leisure time, television and other mass media, urbanization, population growth, and international interdependence and conflicts affect the lives of students profoundly. An intelligent awareness of them is only a beginning toward shaping them to positive rather than negative effects. The schools cannot correct housing patterns, employment practices, and discriminatory voting registration laws any more than they can alter the bitter residue of other nations' colonial policies or call back the scientific discoveries that presage man's control or destruction of nature. But the schools can help students to gain a knowledge of the world in which they find themselves, with a more complete history of all its cultures and as many possible solutions to its problems as can now be foreseen. This much, at the very least, the schools can and should do.

Organized Knowledge as a Base Probably the most immediate single factor forcing change upon education is the explosion of knowledge—the "information revolution." Furthermore, because scientific and scholarly work is now quite extensive and many people are engaged in it, the rate of revision is swift. Teaching the disciplines in this situation clearly requires teaching something more permanent and pervasive than a catalog of factual knowledge, although some facts are essential, and it is clear that there is a continuing need for drill and repetition for learning of basic information.

Educators are not only concerned with the amount of knowledge students possess but also with students' lack of understanding about what they presumably know. Since about 1955, a vivid awareness of this latter problem has led some scholars and researchers to explore ways of selecting, organizing, and teaching available information to make it more intelligible and more usable. In general, the recent studies shift the balance in learning from inventory to transaction. The structure of a discipline, its methods of inquiry, and the styles of thinking of its scholars and specialists offer important keys to this educational task.

Values and Objectives In making decisions about educational ends, music educators seek direction, then, from three major sources: social trends and forces, knowledge of the human being as a learner, and the ac-

cumulated body of organized knowledge about the world and man. In these areas lie the forces that determine the setting and the possible method and substance of education. These forces must then be screened against the values and objectives that society sets for education, and the guides that influence the translation of what could be into what shall be.

The values against which the multiple possibilities for educational practice are screened must be made explicit. To do otherwise would be to make decisions without reference to what is sought and without sufficient heed to the actual needs of those at whom the values are aimed. The following values are vital as criteria for assessing present practices and as guides to future improvement of the schools:

1. Respect for the worth and dignity of every individual
2. Equality of opportunity for all children;
3. Encouragement of variability
4. Faith in man's ability to make rational decisions
5. Shared responsibility for the common good
6. Respect for moral and spiritual values, and for ethical standards of conduct.

The schools should not and cannot provide all of the learning opportunities that students need in order to live fully and effectively. Other agencies have particular responsibilities in the education of youth, and learning also takes place outside the school and continuously throughout life. Furthermore, school time and facilities are finite, making it impossible as well as undesirable that the schools be the source for all necessary learning.

Education is a process of changing behavior—behavior in the broad sense of thinking, feeling, and acting. As a result of education, students should acquire ideas they did not have, skills they did not possess, interests broader and more mature than they had known, and ways of thinking more effective than they had employed. From this viewpoint, educational objectives should be stated in terms of behavioral change, and the responsibilities of the schools should be identified with the behavioral changes most susceptible of accomplishment by the schools rather than by other educative agencies. It is necessary for the schools to choose relatively few important objectives, to work toward them consistently, and to review them periodically in the light of changing times. The additive approach of putting more subject matter into the curriculum and adopting a multitude of educational goals is ineffective.

The basic criterion in establishing priorities should be an assessment of the contributions that education can make to the individual, to society, and to the improvement of mankind. In this swift-moving world, such choices are not easy. What knowledge will today's ten-year-old need three decades hence? What skills will he require to live successfully? What problems will he have to solve? In what social context will he need to reinterpret basic human values? Education must help the individual to cope with change as well as to maintain values that are relatively constant.

The essential objectives of education, therefore, must be premised on a recognition that education is a process of changing behavior and that a changing society requires the capacity for self-teaching and self-adaptation. Priorities in educational objectives should be placed upon such goals as:

1. Learning how to learn, how to attack new problems, how to acquire new knowledge
2. Using rational processes
3. Building competence in basic skills
4. Developing intellectual and vocational competence
5. Exploring values in new experience
6. Understanding concepts and generalizations

Above all, the school must develop in the pupil the ability to learn under his own initiative and an abiding interest in doing so.

This rationale for examining current trends in curriculum and instruction obviously can be applied to music education as well as to other fields. Let us now turn to some important questions about curriculum and instruction.

ASKING THE RIGHT QUESTIONS ABOUT CURRICULUM AND INSTRUCTION No man is just educated; he is educated for some purpose or for many purposes. Decisions about the purposes of education and ways to achieve them are made by many people. But before good decisions can be made, the right questions must be asked, and before the right questions can be asked areas of concern must be identified. A major task of the NEA Project on Instruction was to identify significant areas of concern, select from these areas the ones on which the Project would concentrate, and then raise the right questions about them. Realistically, the framework of the Project did not lend itself to thorough treatment of all the significant areas in education. Limits had to be set, with the result that certain significant concerns—pupil and teacher evaluation, teacher education, and the teaching act itself, for example—were not treated in any detail. Twelve areas of educational concern were identified and a cluster of questions about them was formulated. The questions were these:

1. Who should make what decisions about education?
2. How can an extensive program of educational research, experimentation, and innovation be developed?
3. How can the instructional program of the school be designed to develop the individual potentialities of all members of the school population within the framework of a society that values both unity and diversity?
4. What are the distinctive responsibilities of the school in contrast to those that properly belong to the family, the church, industry, and various youth-serving agencies? What responsibilities should the school share with other institutions and agencies? What, then, should be included in the school program? What should be excluded from it?
5. What is the school's role in dealing with serious national problems such as youth unemployment and juvenile delinquency?
6. What is the school's role in teaching about controversial issues and about communism and other ideologies?

7. How can the school provide a balanced program for the individual and maintain it amidst various pressures for specialization?

8. How can schools make wise selections of content from the ever-growing body of available knowledge?

9. How should the content of the curriculum be organized?

10. How should the curriculum of the school be organized to give appropriate direction to the institutional process?

11. How should the school and the classroom be organized to make the most effective use of the time and talents of students and teachers?

12. How can the quality of instructional materials be improved? How can the products of modern technology be used effectively? How can space be designed and used to support the instructional program?

TRENDS IN DECIDING WHAT TO TEACH Of the twelve areas of educational concern formulated above, seven focus attention on decisions about what to teach. Three are especially relevant to this conference because they concern priorities for the school, a balanced program, and the selection of content.

Establishing Priorities for the School The question, "What shall the schools teach?" and its counterpart, "What shall the schools not teach?" constitutes a central issue in attempts to appraise American education. Stated in behavioral terms, the question is, "What should the graduate be able to do that he could not do if he had not gone to school?"

At a general level, there is agreement. Laymen and educators alike agree that the school has a major responsibility for preparing young people to live in today's society. They agree that the school has a responsibility for preparing young people to live with change and to contribute to constructive change. They agree that the school has a responsibility for helping the individual find and develop his own unique ways to personal satisfaction, recognizing that within the range of behavior that is acceptable to society there is room for much individual variation. At a more specific level, they agree that the student should read, write, speak, compute, and think more effectively than he would had he not gone to school.

Great differences of opinion appear, however, when educators and laymen, together or separately, approach the more complex tasks that come next. These are the tasks of (1) deciding the knowledge, skills, and values that are needed by children and young people; (2) determining which of these goals can best be achieved by the school and therefore should be included in the school program; (3) delineating the knowledge, skills, and values that can best be taught by the home, the church, and other social institutions; and (4) deciding which learnings require the joint efforts of the school and other agencies.

Thoughtful consideration of these questions is needed to determine priorities for the schools—to make sure, for example, that reading is identified as more important than cheerleading. Those responsible for deciding what to teach should apply concrete standards.

In the problem of what to teach, the value of any single item must be analyzed in terms of four criteria: desirability, attainability, feasibility, and clarity of meaning. In appraising the worth of a set of objectives as contrasted with a single goal, there are also four criteria: priority, comprehensiveness, balance, and consistency.

Decisions about the basic educational responsibilities of the school are essential for resolving the question of priorities. In determining what the school ought properly to provide, educators and the public may find it helpful to apply the following criteria.

1. Is it learning that is based substantially upon the arts and sciences?
2. Is it learning of complex and difficult things that require organization of experience and distribution of practice over long periods of time?
3. Is it learning in which the essential factors are not obvious to one observing the phenomenon and where the principles, concepts, and meanings must be brought specially to the attention of the learner?
4. Is it an experience that can not be provided directly in the ordinary activities of daily living?
5. Is it learning that requires a more purified experience than is commonly available in life outside the school? (Schools should not be lifelike; they should be better than life.)
6. Is it learning that requires reexamination and interpretation of experience?[5]

The National Committee for the Project on Instruction made the following recommendation on priorities:

Priorities for the school are the teaching of skills in reading, composition, listening, speaking (both native and foreign languages), and computation . . . ways of creative and disciplined thinking, including methods of inquiry and application of knowledge . . . competence in self-instruction and independent learning . . . fundamental understanding of the humanities and the arts, the social sciences and natural sciences, and mathematics . . . appreciation of and discriminating taste in literature, music, and the visual arts . . . instruction in health education and physical education.

Responsibilities best met by joint efforts of the school and other social agencies include: development of values and ideals . . . social and civic competence . . . vocational preparation.

The decision to include or exclude particular school subjects or outside-of-class activities should be based on: (1) the priorities assigned to the school and to other agencies; (2) data about learners and society, and developments in the academic disciplines; and (3) the human and material resources available in the school and community.

A Balanced Program It is the aluminum age of science, a time of breathtaking technological advancement and swift change. The educational program reflects this no less than the very ways and means of our existence.

If the humanities were once considered all-important, their position has now been usurped by the sciences. Certainly, national needs and the pressures of our time—the race to the moon and the cold war—have brought about this increased attention. The result,

however, has been to create a new and disturbing imbalance—one that threatens to leave today's student starved in the humanities.

Ask any eight-year-old about the sun, and he will tell you that it is 93,000,000 miles from the earth, approximately 866,500 miles in diameter, with a surface rotation of about 25 days at the equator. If he is to live in the shadow of "the bomb," he must perhaps know and be taught all these things. Yet it will always be the larger purpose of education to show him the radiance of a sunset.

Science is not the be-all and end-all of life. We must keep our debt to it in clear perspective. Its penicillin has saved us; its wash-and-wear has clothed us; its air-conditioning has cooled us. One day, its promise of moon living may even give us the universe. But the test tube has yet to come up with an easy formula for increasing man's ability to think, to feel, to appreciate. It is the task of the humanities to help us understand ourselves, as well as our fellow men, and to help us live in this brave new world that science has fashioned for us.

The greatest blessing that technological progress has in store for mankind is not, of course, an accumulation of material possessions. It is the gift of leisure, and the schools must accept the challenge to help today's students utilize this leisure.

Arnold Toynbee says that the creative use of leisure by a minority of even the leisured few in past times has been the mainspring of all human progress beyond the primitive level. Soon automation will provide plenty of free time for workers—without loss of income, of self-respect, or social esteem. To have time on your hands will not be a matter for excuses to the "gainfully employed." If this extra time is misused, however, it may become a curse instead of a blessing.

Some steps in the right direction were cited previously. The primary responsibility, however, is with the schools; they must provide and maintain a curriculum appropriately balanced for each student. Note that we say a balanced *program* and that we are not endorsing an individual so completely balanced that he cannot be creative. While it is true that one of the problems of education is to channel the means by which tension-producing forces are relieved, a slight amount of disequilibrium seems to produce people who are exciting, productive, and imaginative rather than bland, dull, and pablum-like.

The human being is a dynamic organism attempting to keep his energy system in equilibrium. It is possible that, for certain individuals, a program slightly off balance might be appropriate. At least, this is an alternative worth studying.

To achieve a balanced program schools must:

1. Offer a comprehensive program of studies
2. Make early and continuous assessment of individual potentialities and achievements of students
3. Provide individualized programs based on careful counseling.

In addition, local, state, and federal governments should provide general financial support for the *total* program. Recent allocations have failed to do this. In 1961, of the $969 million the government spent in support of basic research, 71 per cent went to the physical sciences, 26 per cent to the life sciences, 2 per cent to the psychological sciences, and 1 per cent to the social sciences. Virtually nothing went to research in the humanities.

In our preoccupation with survival, we must keep sight of the prime question: "Survive for what?" This is not the first time humanity has been threatened with annihilation. In the days of King Arthur, man believed the world would come to an end in the year 1000. When life continued and he received reprieve, he went on a spree of lawlessness and brutality which sickened Europe for centuries.

We must take lesson from the past. We must ask ourselves, "Why survive if we cannot lead a highly civilized life? Why survive if the knowledge, values, and skills that are needed for interested and intelligent participation in the world's economic, social, and political problems are not to be learned at a highly usable level?"

Selecting Content These are perplexing days for man. Apparently, civilization is of such a nature that the further we progress, the more man is forced to admit, "I just do not know." As the result of the massive accretion of knowledge in the past hundred years, many men and women, even the most educated, are forced to concede this.

Knowledge is not only increasing; its growth has reached explosive proportions. As the Mad Hatter in Alice in Wonderland complains, "You have to keep running just to keep up."

So much has been learned in so many areas of knowledge that it is no longer possible for students to learn even summaries of existing knowledge. Sheer bulk defeats any effort to teach knowledge as a body of facts to be learned. Furthermore, we can expect radical reorganization of a given body of knowledge not once in the remainder of this century but several times. The school problem once known as "coverage" is now meaningless and obsolete. Coverage is no longer difficult; it is impossible!

As Harold Gores explains:

A generation ago a competent sixth grade teacher could answer about every question a sixth-grader was likely to ask. How many legs has a grasshopper? What's the capital of Montana? How far away is the moon? Teachers had stored in their heads the encyclopedic facts of life and these were enough to get them through the day without loss of face from "not knowing" the answer.

Today no teacher can be sure. There may be lurking in the back of the sixth grade room an 11-year-old demon who's been watching television or reading the more solemn columns of the newspapers and is ready to pounce with the question, "Teacher, the Russians are going to use solid fuel to get to the moon. Why are we sticking to liquids?"

If the teacher is a normal, well-adjusted, educated person, she won't have the slightest idea. She had better ask the kid what *he* thinks and remember what he says.

When the pace of cultural change is rapid, everybody must learn from everybody.[6]

Never before have the dynamic forces of change spun with such incredible speed. In the nearly two thousand years since the birth of Christ, there has been first a very slow and then a rapidly accelerating growth in the accumulation of knowledge. If this accumulation is plotted on a time line, beginning with the birth of Christ, the first doubling of knowledge occurs in 1750, the second in 1900, the third in 1950, and the fourth only ten years later, in 1960! This explosion of knowledge applies, of course, much more to the natural sciences than to the social sciences and the humanities. Another way of illustrating this phenomenon is that by the year 2000 we will have 2,000 times as much knowledge as we have today.

This knowledge explosion is best illustrated by a look at the record in the increase in knowledge during the past century. A hundred years ago the Smithsonian Institution, probably the world's largest museum, cataloged 46,000 objects; in 1952 it had 33,184,494. In 1850 the British Museum added 14,266 books; a hundred years later the comparable figure was 51,419. Technical papers alone are being turned out around the world at the rate of 60 million pages annually, and Cornell University reports that it is cataloging 80,000 new titles a year. The executive secretary of the National Education Association once described that organization as "this land of smoking mimeograph machines."

Because of this great expansion of knowledge, the problems of what to learn and how to learn it require a different approach today. We need to find ways to move from memorization of facts to discovery of facts; ways to help young students think as physicists think, as historians think, as artists think. One scholar puts it this way: the problem is one of moving from a rhetoric of conclusions to an experience in inquiry.

Illinois math . . . PSSSC . . . SMSG . . . the FLES program . . . the Economic Task Force—these and a bewildering number of other new terms are finding their way into the educational vocabulary. The projects to which these terms refer are major curriculum studies that merit thoughtful consideration. They have grown, in part, out of the need to bring the content of the school curriculum up to date so that new knowledge in specific disciplines can be incorporated and obsolete content can be eliminated. Most of the projects have focused on the development of materials for the secondary schools; few have given attention to the elementary school program.

How, then, can schools make wise selections of content? How can they make intelligent use of the findings and methods of the disciplines? And, in the process, what are the appropriate roles of academic scholars, educators, and laymen? The National Committee for the Project on Instruction made three recommendations:

1. The objectives of the school, with a clear statement of priorities, should give direction to all curriculum planning. This applies to adding content, eliminating content, or changing the emphases on various topics and fields of study.

2. Each curriculum area should be under continuous study and evaluation and should be reviewed periodically. One purpose of such reviews is to determine whether recent findings in the academic disciplines are, or should be, reflected in the instructional program. These reviews should utilize the knowledge and skills of the teacher, the school administrator, the scholar in the academic disciplines, the scholar in the profession of teaching, and the informed lay citizen, each contributing his special competence to the total task.

3. In selecting content, school staffs should study the results and recommendations of curriculum projects sponsored by nationally oriented groups with a view to applying promising findings. There should be a systematic procedure for studying the results of these curriculum projects. The procedure should recognize the importance of balance and continuity in the total school experience of students and include the steps prerequisite to curriculum changes.

The above suggestions are, of course, essential for the college curriculum too.

TRENDS IN PLANNING AND ORGANIZING FOR TEACHING The tasks of planning and organizing for teaching are complex and demanding. This is a fact, but its truth is not always recognized, even by some members of the teaching profession. From those who do not recognize the complexity of the tasks come superficial approaches and naive proposals. From those who recognize both the difficulty and the importance of the tasks must come careful study, creative proposals, and promising innovations. Current educational innovations can be classified as follows: (1) practices directed to fuller and more effective utilization of human talent; (2) practices directed to fuller and more effective utilization of time; and (3) practices directed to a fuller and more effective utilization of technology.[7]

The National Committee for the Project on Instruction has made several recommendations concerning school and classroom organization. The following are two examples:

1. The vertical organization of the school should provide for the continuous, unbroken, upward progression of all learners, with due recognition of the wide variability among learners in every aspect of their development. The school organization should, therefore, provide for differentiated rates and means of progression toward achievement of educational goals.

Nongrading and multigrading are promising alternatives to the traditional graded school and should be given careful consideration in seeking to provide flexible progress plans geared to human variability.

2. In order to provide individually planned programs for learners, taking into account the specific objectives to be achieved, the horizontal organization of the school should permit flexibility in assigning pupils to instructional groups that may range in size from one pupil to as many as a hundred or more. Well-planned cooperative efforts among teachers—efforts such as team teaching, for example—should be encouraged and tested.

Education cannot muddle through in the traditional setting in the traditional way while the rest of society promptly employs new technical resources and reorganizes whole industries on the basis of their use. Fortunately, the press for efficiency, variety, and aesthetics in school design and for the use of technology at appropriate points in the school program is well begun.

In both new and old buildings, technological developments such as television, tape recordings, teaching machines, language laboratories, films, and filmstrips, already have made marked contributions to the curriculum. Their use is expected to spread widely in the future. Computers have been tried in the complicated task of developing a master schedule, where pupils' and teachers' time, course offerings, and classroom space somehow have to be matched. A number of schools have already been built that architecturally reflect the best current knowledge about learning and aids to learning. The designs stress flexibility and amenity in the school environment. The tremendous potential of new instructional materials and technology has also been recognized in the Committee's recommendations on the use of educational television and radio, programed learning, instructional materials centers, and automation.

Harold Gores, writing with wit and grace and sprightliness, should be recorded here at length if for

no other reason than for the joy of his lean and lucid prose:

> First, let's look at the schoolhouse, the most public of public buildings, the public building more people care about, get angry over, and take up sides about. Look at them, if you can, as though you hadn't, once upon a time, spent a quarter of your life in one.
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> A schoolhouse is a big box filled with equal-sized little boxes called classrooms. The classrooms are like our kitchens—hard, reflective, reverberative, utilitarian, indestructible, and antiseptic. Their motif is dictated by a municipal desire to frustrate any errant scholar who, unsheathing his jackknife, might try to carve his initials in this ceramic vault the taxpayers have provided for his childhood.
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> The very architecture sorts the children. It helps the administration to establish groups of uniform size—25 pupils if the community is rich, 35 if it is poor, and 50 if it doesn't care. In each box is placed a teacher who will be all things to all children all day all year. If it be a secondary school, bells will ring to signal the musical chair game that is played a half-dozen times a day as groups exchange boxes. This is known as secondary education.
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> The interior layout of schools has been this way ever since the Quincy School was built in Boston in 1847, and keyed for 100 years their ice-cube tray arrangement. Incidentally, the Quincy School, now in its 115th year, is scheduled next year for abandonment because Boston, which was once described as becoming a cemetery with lights, now finds the Quincy School a detriment to the exciting rebirth of that city.[8]

Gores goes on to describe a new demonstration school being developed by the New York University School of Education and the architect I. M. Pei:

> The school will some day, it is hoped, occupy a half-acre of Washington Square, where land is three-quarters of a million dollars per acre. What is startling about this building is that its playground site will be built into, under, and on top of the building. After all, land at three-quarters of a million dollars per acre makes city schools built in the suburban image quite beyond the public fisc.
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> The building is, in effect, seven layers of space, out of which group spaces, including classrooms, can be snapped as needed. Perimeter classrooms lead out onto balconies which provide outdoor work space for each classroom. It is quite possible that some day you may approach this building in its highrise setting and see it literally alive from top to bottom with the shrubs and flowers the children planted. A sunflower, though 80' in the air, is still a sunflower, and the big city could use a few to diminish its brassy, glassy facelessness. Truly this school can bring oxygen back to the city.
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> What such a school can do for children is obvious. But what it can do toward reinvigorating a city is equally important. And it is not entirely inappropriate that a school for children could lead commercial construction toward more humane and esthetic expression.[9]

With regard to planning and organizing for teaching, there are many alternative directions to consider. Many schools are moving in these directions:

	FROM	TO
1.	The group	The individual
2.	Memory	Inquiry
3.	Spiritless climate	Zest for learning
4.	The graded school	The nongraded school
5.	Self-contained classroom	Self-contained school

	FROM	TO
6.	Scheduled classes	Appointments and independent learning
7.	Teacher as general practitioner	Teacher as clinical specialist (member of team)
8.	School building use geared to an agrarian society—nine-month year—limited to children	School building use reflecting urban society —twelve-month year—available to all age groups
9.	Classrooms that are like kitchens	Classrooms that are like libraries, living rooms
10.	Boxes and egg crates	Clusters and zones of space
11.	Teaching as telling	Teaching as guiding
12.	A teaching schedule of 30 hours a week with children in class and 15 hours for planning and correcting	15 hours a week with children in class and 30 hours for research, planning, and development.[10]

TRENDS IN TEACHING[11] The prior, somewhat subjective approaches to the study of teacher behavior and teacher competencies have been replaced by a number of objective analytical techniques. The report of the American Association of Colleges for Teacher Education on the Teacher Education and Media Project makes an excellent beginning on the redefinition of teacher training as an intellectual process. The variables inherent in all teaching-learning situations are now better defined and their inter-relationships more clearly seen.

Advances in the research and the applications of the research in learning have reached a new level of meaningfulness for curriculum development, as shown by the fields of mathematics, sciences, foreign languages and social sciences. Work by Piaget, Bruner, Ausubel, Hilgard, Woodruff, Taba, and many others illustrates the progress in this vital area. The studies in creativity, thinking, and gifted children represented by Getzels, Guilford, Jackson, Aschner and others have added new dimensions of understanding to both the meaning and application of learning research. The study of human behavior through improved research designs and extended longitudinal investigations adds to the preceding research. Within the last few years the behavioral sciences generally have attained a new level of maturity.

Theories of teaching or instruction have received considerable attention by several scholars such as Elizabeth Maccia, George Maccia, Bellack, Kounin, Travers, Suchman, Gage, and others. Recent developments in areas such as information theory, communication theory, game theory, and systems theory are being critically studied for their relationships to instruction. The research in linguistics and the renewed emphasis on analytic philosophy are also related to and support

the work in theory of teaching. The study of knowledge, structures of knowledge, and ways of knowing has a particular meaning for the professional preparation of teachers.

TRENDS IN EVALUATION There is a growing body of literature questioning some of the current ways of evaluating student progress and potential, so that a study of this subject is now not only at a turning point but is more than ever full of controversy. There is no point to testing students for a catalog of their knowledge in a given discipline if educators are agreed that the disciplines ought to be taught in terms of principles and appropriate methods of inquiry. Students will then be evaluated on their ability to recognize and apply to fresh data the principles and methods they have discovered. It is essential that new instruments of evaluation be developed in order to adequately measure progress in identifying and using such principles and methods.

For many years, the concept of most people (professional educators and psychologists included) of the human mind and its functioning was largely limited by the concepts embodied in intelligence tests. Though presumably no developer of intelligence tests meant to imply that an intelligence test assessed all of man's intellectual functioning, educators often have behaved as though this were so. It has almost always been the sole instrument used in assessing intellectual potential, mental growth, and the like, and it has been heavily relied upon to determine who was mentally retarded and gifted. Unfortunately, we have usually shaped the educational curricula and methods to bring about the kind of growth or achievement that is related to the mental abilities involved in intelligence or scholastic aptitude tests. Measures of educational achievement have also been patterned along these same lines.

Although there are a number of lines of research that have contributed to an expanded concept of the human mind from the old narrow definition of intelligence that "intelligence is what intelligence tests measure," the efforts related to creative thinking abilities have done much to push this expanded concept into the consciousnessof educators. This research points to some of the things that must be done to bring about a higher level of mental health and educational achievement.

Education is not more humane because it has failed to recognize differences among children in their ways of learning. Some tend to learn by authority and are anxious to please their teacher; these will respond favorably if the teacher rewards correct responses. Some children, on the other hand, tend to learn spontaneously or creatively, by exploring, testing the limits, searching, inquiring, manipulating, and even playing. It appears that research on the relationship between mental abilities and procedures of instruction, an area which has never really been explored, might be truly promising and may lead to an understanding of what it really means to individualize instruction.

A broader concept of the human mind and its functioning opens up many new and exciting possibilities. It places new emphasis on what man may become. It suggests that we can educate to a higher degree many people whom we have not been very successful in education—the vast army of dropouts. There is already evidence of "hopeless" individuals who began to learn successfully when permitted to learn creatively rather than by authority and when they were rewarded for this kind of achievement.

Drastic changes in evaluation techniques will accompany changes in instruction. Since most of life's questions do not have one correct answer but numerous alternatives, the old model of test construction will fall.[12]

TRENDS IN TEACHER EDUCATION Can the colleges catch up with the high schools?[13] Is it now time for Mr. Conant to study the liberal arts college so that the real scandal in American education will be unveiled? Seriously, my first proposition is that we need to launch immediately a five-year comprehensive Project on the Instructional Program of American Colleges. Such a Project is desperately needed now. Father Hesburgh, President of Notre Dame, states the problem succinctly:

> . . . our modern liberal education is a melange of disaggregate parts, concocted by piling course on diverse course, without internal unity of the subject matter itself and with even less external integration contributed by the various teachers who are prepared by highly specialized graduate schools and presently compartmentalized into the equally specialized structure of isolated academic departments.
>
> The result is comparable to a tossed salad, except that to fill out the analogy we would have to admit that the component parts are seasoned with Russian, Roquefort, French, and Thousand Island dressing all at once.[14]

If teacher education is to move beyond the somewhat superficial recommendations of the Conant Report, the proposed project must include studies in depth of three components. First, the teacher's liberal education, which frees him from ignorance, prejudice, and provincialism, must have a thorough going-over. Second, the academic specialization which all teachers need even if they teach in kindergarten—if for no other reason than to have the psychological ownership of knowing one subject well—must be revised. Finally, the teacher's professional education must be made more vital. My second proposition, therefore, is that we select students for teacher education wisely so that newly revised and rigorous programs will have the chance to succeed. No informed person today believes that all there is to teaching is to know one's subject and make the children behave. It is now clear that the teaching of reading involves considerably more complex skills than taking out an appendix. Students who are admissible to the medical school could be considered for teacher education.

Burns has some provocative ideas about teacher education:

> As to sustaining principle, there is one over-riding belief shared by us Athenian pedagogues, and this is it: **In no profession, in no occupation, is a liberal education more important than in teaching.** That may not strike you Spartans as much of a principle; indeed, let me admit that to our mentor, Socrates, it is merely a tautology which says only that "a teacher is a teacher," with the implication that illiberally educated teachers are in fact merely indoctrinators, baby-sitters, or non-teachers.
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> When we look at the full import of this principle, we see that it leads directly to the all-University concept of teacher education, a concept which demands that the WHOLE of the University, ALL of its intellectual resources and a great deal of its financial resources, must be brought to bear upon the problems and programs of training teachers for all Athenian youth.
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> To do otherwise, to separate the arts and sciences from professional education, and put each in its own academic cubby-hole with its own separate and unrelated functions, is to foreshorten the power of the University and arbitrarily limit its contribution to our communities. Such an artificial division of function and purpose would condemn professional education to an aimless, eternal wandering, lost in the Peloponnesian forests of content-less methodology, and the training of teachers would become the passing on of ancient pedagogical fictions, educational folklores, and old teacher's

tales repeatedly told to students in a same-course-but-different-title curriculum. It would also condemn the arts and sciences to intellectually sterile inbreeding, producing second and third and fourth generations of ivory towered specialists with little means, and perhaps no inclinations, to influence or educate the masses of people since all functional contact with future public school teachers would be needlessly sacrificed to the false dichotomy which separates the arts and sciences from professional education.

Such would be, and have been, the bitter fruit produced when the several branches of the tree of learning grow apart. But when the academic trunk of a university is strong and sturdy, when its intellectual roots grow deep and spread out to touch all programs, then that branch we call teacher education is truly an integral part of the tree of learning and will surely flower because it draws support and sustenance from all the arts and sciences.

Less metaphorically, the all-University principle which guides us Athenians signifies that there is a total institutional responsibility for the education of teachers.

"Now," you Spartans are entitled to ask, "if these be not mere words uttered in Socratic fashion, what action must follow—for we of Sparta are men of action." Let me then identify only a few of the actions suggested.

First, as to curriculum: if we Socratics are right in our judgment that in no profession is liberal education more important than in teaching, it certainly follows that we should design a teacher education curriculum which is basically achieved in and through the arts and sciences. But, at the same time, we realize that *liberal* education is *not* equivalent to teacher education. A liberal education for teachers means not only an undergraduate curriculum which does something more than familiarize our Athenian students with the arts and sciences, it also means joint specialization in academic and professional subject-matters—in academic knowledge of the subject to be taught, and professional knowledge of the teaching-learning process.

These joint requirements provide the key to curricular plans in teacher education at Athenian University: all prospective teachers will be jointly enrolled in the College of Arts and Sciences and the School of Education. The full meaning of joint enrollment is that, with reference to secondary school teaching, merely majoring in a subject is no guarantee that one can teach that subject, for subject matter competence is a necessary but insufficient condition of teaching; hence the need for professional preparation coupled with academic training. With reference to elementary school teaching, merely majoring in elementary education is no guarantee that one will be able to teach the range of subjects required at that level. As a matter of fact, given the sociological and epistemological realities of public education in an increasingly complex and technological society, the day of the so-called "self-contained classroom" in the upper elementary grades is—and ought to be—doomed, for no one teacher can possibly do justice to the "3R's," plus social science, plus physical science, plus art, plus music, plus, plus, plus. The upper elementary school teacher will need increasingly to specialize in one or two teaching subjects. This is not to say she will be a mathematician or a scientist or an historian; but it is to say she will be a specialist deliberately trained in the teaching of mathematics or science or social studies or language to children of certain ages or grades or levels of cognitive development.

Second, as to faculty: given the foregoing, it follows that—*in an informal but nevertheless important* sense—any professor who teaches anything to any future teacher is in some way part of the teacher education faculty. More formally, the term "joint appointment" indicates another principle: those professors who are primarily or directly involved in teaching students or

subjects pertinent to teacher education—be their primary academic appointment in the arts, sciences, or humanities—have the right and the obligation to belong to the faculty of an all-University school of education and participate in its deliberations and actions, its rights and responsibilities. On this view the faculty of a school of education will be composed not only of those with single appointments in teacher education but, where appropriate and when possible, by joint appointments with those holding primary appointments in other units of a university.

To illustrate, consider the training of foreign language teachers for the public schools: here the separation of content from method, or the separation of the academic from the professional, is simply impossible. And since this is so, should not some professors of foreign languages be involved in the planning and supervision of the practice-teachers they have helped to prepare? Such joint appointments would clearly enhance both the academic and professional aspects of teacher education.

Third, as to student body: with such curricula and such a faculty, who is to be enrolled? The honest and direct answer is this: only the superior student. Those possessed with the idea that teachers in training are the dull rejects of the arts and sciences, that anyone can teach in the public schools even though not everyone can master the subject matter to be taught, or that teacher education curricula will be filled with "Mickey Mouse" courses taught by professors so distinterested that they waive all standards on request, forget it. A simple sense of logic requires that teachers be better prepared than other graduates, so acceptance to joint enrollment in the teacher education curriculum means that such students are among the most promising scholars for, while the average student may learn his subject, only the best qualified should teach it. Teaching is not only a noble profession but a demanding profession, for which only the talented need apply.[15]

SUMMARY This paper has attempted to deal with seven areas of concern to all educators:

1. A theoretical background for examining current trends in curriculum and instruction
2. Asking the right questions about curriculum and instruction
3. Trends in deciding what to teach
4. Trends in planning and organizing for teaching
5. Trends in teaching
6. Trends in evaluation
7. Trends in teacher education

To determine the implications for music education of the trends cited in this paper is a task for this seminar-conference and for music educators across the country. A number of issues have been considered. Some lines of action have been drawn. One point to be underscored is this: the recommendations of the NEA Project on Instruction can be used as you draw up your own priorities, your own action committees, and make your decisions.

The assumptions underlying this entire paper are that college faculties need to understand current trends in the school program and that they also need to get moving to improve their own programs. To these honorable tasks the NEA Center for the Study of Instruction pledges its resources, its stable of talented consultants across the country, and its energy.

NOTES

[1]*New York Times*, March 11, 1965.

[2]*The Performing Arts—Problems and Prospects*, Rockefeller Panel Report on the Future of Theatre, Dance, Music in America, New York: McGraw Hill, 1965.

[3]Ralph W. Tyler, *Basic Principles of Curriculum and Instruction*, Chicago University of Chicago Press, 1950, pp. 1-83.

[4]Some of the preceding section is drawn from Robert M. McClure, "Procedures, Process, and Product in Curriculum Development," unpublished Ed. D. dissertation, Graduate Division, University of California, Los Angeles, 1965.

[5]Ralph W. Tyler, "Emphasize Tasks Appropriate for the School," in *Phi Delta Kappan*, XL/2 (November, 1958) 73-74.

[6]Harold B. Gores, "The Big Change," an address delivered to the 43rd Annual Convention of the New York State School Boards Association, December, 1962.

[7]Lester W. Nelson, "A Perspective on Innovation in Education," unpublished paper delivered at a National Education Association Staff Meeting, October 31, 1962.

[8]Gores, *op. cit.*

[9]*Ibid.*

[10]*Ibid.*

[11]For exact references to the studies cited in this section, see bibliography in Herbert F. LaGrone, *A Proposal for the Revision of the Pre-Service Professional Component of a Program of Teacher Education*, Washington, D.C.: American Association of Colleges for Teacher Education.

[12]Robert D. Strom, Ohio State University, has studied trends in evaluation, and he has permitted the writer to draw on one of his unpublished papers for this section.

[13]Lee A. DuBridge, "College Freshmen Are Better Than Ever," in *NEA Journal*, LI (October, 1962), 10-12.

[14]Theodore M. Hesburgh, "Liberal Education in the World Today," in *Association of American Colleges Bulletin*, XLI (March, 1955), 82-87.

[15]Hobert W. Burns, "Response to Dr. Ole Sand," paper read before the meeting of the American Association of Colleges for Teacher Education, Chicago, Illinois, February 11, 1965.